

DOCUMENT RESUME

ED 391 974

CE 070 984

TITLE School-to-Work: Focusing Education on Job-Readiness.

INSTITUTION Ohio State Legislative Office of Education Oversight, Columbus.

PUB DATE May 95

NOTE 30p.

PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Abstracts; Adult Basic Education; Educational Needs; Educational Policy; *Education Work Relationship; Enrollment; *Financial Support; *Labor Force Development; *Pilot Projects; Postsecondary Education; Program Descriptions; Program Development; Role of Education; Secondary Education; *Statewide Planning; Vocational Education

IDENTIFIERS *Ohio

ABSTRACT

This document provides an overview of the history, status, and funding of school-to-work programs in Ohio. First, school-to-work transition programs are discussed in the larger context of work force development. Presented next are the rationale for the school-to-work approach to education and its main objectives and components. The differences between school-to-work and current vocational programs and differences between different school-to-work models (youth apprenticeship, tech prep, career academies, restructured vocational education, and occupational-academic clusters) are explained. Ohio's pilot school-to-work projects are discussed along with funding and the current of school-to-work programs in Ohio and steps legislators can take to further Ohio's school-to-work efforts (continue to fund projects; shift the focus from state-level planning to local implementation; and encourage networking among schools and businesses). Appendixes constituting approximately 50% of the document contain the following: descriptions of 22 Ohio occupational and basic education programs that target young adults aged 14-24 (including information on program goals, target audience, main components, state budget authority, current/proposed state funding, and number of clients served in fiscal 1994); a table summarizing enrollment in Ohio's six vocational program areas in fiscal 1994; and descriptions of Ohio's 11 school-to-work pilot projects. (MN)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

CE

ED 391 974

School-To-Work: Focusing Education on Job-Readiness

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☒ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

N. Z. J. J. J.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

LEGISLATIVE OFFICE OF EDUCATION OVERSIGHT
COLUMBUS, OHIO
May 1995



070 984



LEGISLATIVE OFFICE OF EDUCATION OVERSIGHT
30 EAST BROAD ST. - 27TH FLOOR
COLUMBUS, OH 43266-0927
Phone (614) 752-9686 Fax (614) 752-3058

SENATORS

H. Cooper Snyder, Chairman
Linda Furney
Merle Grace Kearns
Rhine McLin
Richard Schafrath

PROJECT TEAM

Suzan Hurley Cogswell
Cynthia J. DeJacimo

REPRESENTATIVES

Karen M. Doty
Michael Allen Fox
Randall Gardner
J. Donald Mottley
Daniel P. Troy

INTERIM DIRECTOR

Nancy C. Zajano

The Legislative Office of Education Oversight (LOEO) serves as staff to the Legislative Committee on Education Oversight. Created by the General Assembly in 1989, the Office evaluates education-related activities funded wholly or in part by the state of Ohio.. LOEO prepares research reports and information memos on topics selected by its Committee. Research reports provide conclusions and offer recommendations. Information memos are short descriptions of programs or issues.

School-To-Work: Focusing Education on Job-Readiness

Table of Contents

Overview of Job-Skills Training Programs	1
Why Is a School-To-Work Approach to Education Needed?	2
Methods	3
What Is School-To-Work?	3
How Is School-To-Work Different from Current Vocational Programs?	4
Are All School-To-Work Projects the Same?	4
Does Ohio Have School-To-Work Pilot Projects?	5
How Are Ohio's School-To-Work Efforts Funded?	6
What Is the Current Status of School-To-Work in Ohio?	8
What Can Legislators Do to Further Ohio's School-To-Work Efforts?	10

Appendices

A - Selected Occupational and Basic Education Programs	A1-A8
B - High School Vocational Education Programs and Students	B1-B2
C - Ohio's School-To-Work Pilot Project Descriptions	C1-C3

School-To-Work: Focusing Education on Job-Readiness

This information memo provides an overview of School-To-Work transition programs. It places School-To-Work in the larger context of workforce development and answers seven questions about the history, status, and funding of School-To-Work efforts in Ohio. Descriptions of the 11 pilot projects currently funded in the state budget are provided. Three issues are identified for legislative action.

Overview of Job-Skills Training Programs

Job-skills training programs assist people who are without work and those who require upgraded skills to maintain employment or change employment. These programs teach occupational, basic education, and other skills that enable individuals to find and keep jobs. The programs can also provide on-the-job or work-site training.

Ohio's job-skills training programs receive federal and state funding. Many of these programs were developed to serve persons who are economically disadvantaged; many are tied to the state's economic development efforts. State agencies involved in the operation of these programs include: the Ohio Bureau of Employment Services (OBES), the Ohio Departments of Education (ODE), Development (DOD), and Human Services (ODHS), and the Ohio Board of Regents (OBOR). **Appendix A** provides information on selected job-skills training programs available to young adults in Ohio, including current and proposed state budget appropriations.

The federal government has a long history of involvement with job-training. The Job Training Partnership Act (JTPA), created in 1982, is the largest federal job-training program. JTPA was originally designed to provide employment training to individuals with low incomes, welfare recipients, displaced workers, and youth through summer employment. The 1992 amendments to JTPA emphasize services for clients with "multiple barriers to employment, such as socioeconomic and disability

barriers." Approximately 40% of JTPA funds are spent on services for youth. Other federal training programs that have become closely associated with JTPA because they provide similar services and share common client bases include: the Job Opportunities and Basic Skills (JOBS) program, Carl D. Perkins Vocational and Applied Technology Education Act, and the Adult Education Act.

Public middle and secondary schools also provide job-skills training, traditionally through vocational programs. Historically, these programs have targeted young adults who are preparing for full-time employment after high school graduation. Vocational programs can be similar in content to other job-training programs, but they are funded and administered separately through the public school system. The majority of funds for Ohio's vocational education programs are provided through the federal Carl D. Perkins Act and the state biennial budget. **Appendix B** provides additional information on vocational education and the number of students statewide in each vocational program area.

Post-secondary institutions, most notably two-year technical and community colleges, also play a major role in providing job-skills training for young adults. Approximately 29% of students enrolled in the state's two-year colleges are 21 years of age or younger. Two-year schools also serve working adults who require additional education and skills training to remain employed.

Why Is a School-To-Work Approach to Education Needed?

Despite the availability of job-training programs, national studies by the Government Accounting Office and others indicate that many young people do not possess the skills needed to sustain basic employment. An estimated 30% of America's youth between the ages of 16 and 24 lack entry-level employment skills and 50% of adults in their late twenties have not secured steady employment. The National Conference of State Legislatures reports that 85% of high school students either do not attend or do not graduate from college and enter the workforce without marketable job skills. According to the August 1993 Newsletter of the National Center for Research in Vocational Education:

The noncollege-bound often drift from one unskilled job to another, learning no skills, and working mainly with other nonskilled young people. This system wastes time, delays maturity, and . . . when [training] is offered . . . [it] is haphazard and in most cases does not result in any recognized credentials or certification.

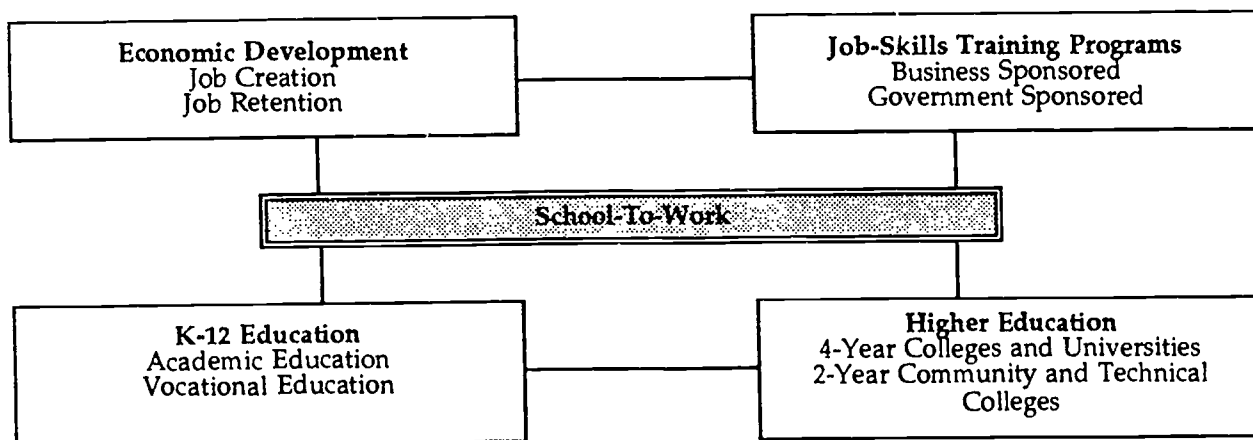
In response, the U.S. Departments of Labor and Education have introduced the School-To-Work Opportunities Initiative to

better prepare high school students for employment. School-To-Work is imbedded in the larger human resource development effort to create a more highly skilled and flexible workforce, which is better able to compete in a global economy. Under this initiative, states are encouraged to tailor their School-To-Work efforts to their particular economic needs. States are urged to coordinate their School-To-Work efforts with the education reforms they have outlined in their Goals 2000 initiatives.

Assistance from the federal government for School-To-Work is limited to planning and implementation grants, technical support, and waivers of some federal training and education funding requirements. To date, federal planning grants of up to \$1 million to design the administrative framework of a statewide School-To-Work system have been distributed to every state, as authorized by the School-To-Work Opportunities Act of 1994. Within the next four years, all 50 states are expected to receive implementation grants.

Exhibit 1 depicts the relationship of School-To-Work to other components of workforce development.

Exhibit 1
Relationship of School-To-Work
To Components of Workforce Development



Methods

To prepare this memo, the Legislative Office of Education Oversight (LOEO) reviewed grant proposals, planning documents, and federal and state legislation pertaining to School-To-Work and related job-training initiatives. LOEO contacted the Governor's Human Resource Investment

Council, selected members of the General Assembly, the Legislative Service Commission, the Ohio Departments of Education and Development, the School-To-Work Office, the Ohio Board of Regents, directors of selected School-To-Work pilot projects, and small business representatives.

What Is School-To-Work?

School-To-Work can be described as a variety of educational and occupational programs that provides students with the skills needed to enter the workforce, pursue a post-secondary education, or both. School-To-Work emphasizes the importance of job-related skills for all students and the active involvement of business and industry in reshaping educational, vocational, and job-training programs.

School-To-Work programs improve the transition from school to work by combining learning in the classroom with learning in the workplace. Classroom instruction consists of career education and academic instruction with "applied learning," a method in which academics are taught using activities and examples from the workplace. Similarly, experience in the workplace is used to reinforce basic skills learned in school and to demonstrate the applicability of these skills to occupational fields. In effect, School-To-Work programs strengthen the connection between school and work so that students are successful both in graduating from high school and in beginning a career.

For example, students in health-related studies learn about the health field through electives and material integrated into their English, math, or science courses. They also

learn about the different roles played by health professionals, such as radiology technicians or doctors, and the kind of preparation needed to enter those professions. Actual exposure to the workplace complements the integration of work-related themes into the academic courses. The School-To-Work approach gives students a solid academic background and helps them to see more clearly the path from school to a job or career.

A School-To-Work approach to education includes three basic elements:

1. *School-based learning* that includes information on career options and career preparation for all students, as well as applied academics linked directly to workplace situations;
2. *Work-based learning* that provides meaningful experiences in the workplace for all students, including paid work experiences wherever possible, which is coordinated with learning in school; and
3. *Connecting activities* that lead to active partnerships among high schools, vocational schools, post-secondary institutions, and the local business community.

How Is School-To-Work Different from Current Vocational Programs?

School-To-Work builds on the existing system of vocational education, yet there are important differences. The first difference is School-To-Work includes all students. The goal of School-To-Work is to have every student, even college-bound, participate in some work-based experience prior to graduation that is linked directly to learning in the classroom.

The second important difference is that business and industry have an increased role in education. While the business community continues to be involved in an advisory capacity with the planning and evaluation of vocational and other job-training programs in their communities, School-To-Work requires that they also become involved with teaching. Work-site mentors work closely with students to demonstrate the applicability of academic coursework and other classroom activities to specific occupational fields.

Third, School-To-Work uses broad-based occupational fields, called pathways or clusters, to focus students' academic and occupational training. This approach enables knowledge and skills to transfer from one job to another. Training that is more job specific is used primarily to teach underlying principles and concepts. For example, students might examine automobile engines to learn about electricity and combustion, but not specifically how to repair automobiles.

A School-To-Work system dissolves the historic separation between academic and vocational programs by "detracking schools." Students going on to universities or technical colleges benefit from a system that links academic coursework with careers that may interest them. Vocationally trained students benefit from a system that enables them to remain eligible for some form of post-secondary education, even though some may not choose to go.

Are All School-To-Work Projects the Same?

School-To-Work projects are developed to meet local economic needs and interests and can vary from community to community. Different parties may be involved in setting up and running programs, in part because education and job-training resources may vary across communities. For example, some communities have a technical or two-year college, some have large manufacturing companies, others have small businesses and light industry. Some have well-developed Business Advisory Councils or strong Chambers of Commerce. All these differences create a variety of contexts in

which to develop and implement School-To-Work projects.

School-To-Work programs can be grouped into five basic models reflecting varying levels of work-based experience. Youth apprenticeships leading to a credential contain the most work-based experience. The next level would be paid work experience followed by internships, mentorships, and last, job shadowing and field trips. Exhibit 2 describes the five models in the order of most-to-least work experience.

Exhibit 2
School-To-Work Models
(in the order of most-to-least work experience)

Youth Apprenticeship Model -- Prepares students for a specific occupation, such as metalworking or auto mechanics, by combining classroom instruction with extensive workplace experience. Student apprentices practice skills and gain hands-on experience by performing job-related tasks under the guidance and supervision of teachers or adult workers.

Tech-Prep Model -- Provides instruction and simulated workplace activities in applied areas, such as business, health, or engineering technologies. The high school curriculum is closely coordinated with technical and community college courses, allowing students to pursue post-secondary training and earn associate degrees or two-year certificates. Students may earn college credit for some high school courses. Some participate in paid technical apprenticeships.

Career Academy Model -- Emphasizes classroom instruction related to careers such as financial services or health industries. Students supplement classroom instruction with regular interaction with local professionals, summer internships, and professional mentoring programs.

Restructured Vocational Education Model -- Offers preparation for a wide range of careers within occupational fields, such as engineering and agriculture. Students learn through hands-on experience and workplace simulations that help them choose an occupation.

Occupational-Academic Cluster Model -- Allows students to choose a broadly-defined career path or occupational cluster and receive classroom instruction in basic academic courses modified to include subject matter and examples from the path or cluster. Job shadowing and field trips are used for career exploration.

Does Ohio Have School-To-Work Pilot Projects?

There are currently 11 School-To-Work pilot projects in Ohio. These projects are funded through the Ohio Departments of Education and Development. Exhibit 3 lists the 11 projects, their funding, the number of student participants, and identifies the School-To-Work model most closely associated with each project. Appendix C provides descriptions of each pilot project.

LOEO reviewed the program descriptions and made several observations about the pilot projects. Pilots were funded in locations throughout the state. A variety of occupational fields, such as metal working, engineering, automotive, health, electrical, and business are represented by these pilots. A limited number of students is served. The 11 pilots serve 523 students;

most projects serve between 10 and 30 students; one serves 255. Each site includes only one occupational field and one School-To-Work model, which most often is the tech-prep model. No pilot project demonstrates the application of School-To-Work to an entire school and student body.

Ohio contracted with a New York research firm to complete an evaluation of the 11 pilot projects in the spring of 1995. According to Ohio's School-To-Work Office,

"Results achieved by these projects will be used to inform the development of Ohio's School-To-Work system." The evaluation will include a review of pilot projects against the projects' criteria and the three basic elements of a School-To-Work approach, identify common barriers, summarize findings, and make recommendations. Some comparison with the School-To-Work projects in other states will also be provided by the firm.

How Are Ohio's School-To-Work Efforts Funded?

Ohio's School-To-Work effort began in 1993 with a \$200,000 grant through the National Conference of State Legislatures (NCSL). Funded by the DeWitt Wallace-Reader's Digest Fund, these grants were intended to encourage legislative leaders to design and implement integrated systems for workforce preparation and economic development. This first grant proposal was spearheaded by the Investing in People Project A-team, a group of legislators, business and community leaders, educators, and staff of various state departments interested in developing additional apprenticeship programs in Ohio.

Funds received have been used for: two policy institutes with consultant presentations; a joint conference with five other states participating in the Investing in People Project; forums with business, labor, and the education community; and

legislative support staff to assist in the development of a progress report to the Ohio General Assembly.

Ohio also applied for and received \$850,000 in planning grant money from the federal government in 1994. The proposal was developed by the Governor's Human Resource Investment Council (GHRIC) and provides support for a state-level School-To-Work Office and funds to conduct numerous planning and assessment activities. These activities include: an examination of related laws and potential state and federal waivers; a funding study to determine the degree to which School-To-Work can be integrated into existing sources of funding; a survey of employers and potential incentives for participation; and labor market analyses including recommendations for local programs.

Exhibit 3 Ohio's School-To-Work Pilot Projects FY 1994 and FY 1995

Pilot Project Site Project Name	Occupation Field	School-To-Work Model *	State Funding Agency and Amount FY 1994 and FY 1995	Students Served
Center for Leadership in Education Lorain County School-to-Work Transition Program	Metalworking and Building Trades, International Business, and Environmental Studies	Youth Apprenticeship	ODE: \$70,000 FY 94; \$70,000 FY 95 ODOD: \$75,000 FY 94; \$75,000 FY 95	33
Columbus State Community College/ Eastland Vocational Schools Central Ohio Tech-Prep	Administrative Technology (insurance, banking, or health services)	Youth Apprenticeship	ODE: \$70,000 FY 94; \$70,000 FY 95 ODOD: \$74,533 FY 94; \$75,000 FY 95	59
Cuyahoga Community College North Coast Tech-Prep Consortium	Health Occupations	Tech-Prep	ODE: None ODOD: \$42,000 FY 94; \$42,000 FY 95 (funding for FY 95 will not be used until FY 96)	0
Marion Technical College/ Tri-Rivers Career Center Tech-Prep Partners Consortium of Marion	Production/Business, Computer, and Engineering Technologies	Tech-Prep	ODE: None ODOD: \$42,000 FY 94; \$42,000 FY 95	75
Owens Technical College/Grob Systems, Inc. Mechanical and Electrical Technician Apprenticeship	Mechanical and Electrical Technology	Full Apprenticeship	ODE: None ODOD: \$25,000 FY 94; \$25,000 FY 95 (ODOD funding for this project was appropriated through the Industrial Training Line Item 195-434)	11
Shawnee State University Ohio South Tech-Prep Consortium	Business and Engineering Technologies	Tech-Prep	ODE: None ODOD: \$42,000 FY 94; \$42,000 FY 95	12
Sinclair Community College Miami Valley Tech-Prep Consortium - Automotive	Automotive Technology	Tech-Prep	ODE: None ODOD: \$75,000 FY 94; \$75,000 FY 95	30
Sinclair Community College Miami Valley Tech-Prep Consortium - Electronics	Electronics and Electro- mechanical Technologies	Tech-Prep	ODE: None ODOD: \$42,000 FY 94; \$42,000 FY 95	30
Stow - Munroe Falls City Schools Akron Tech-Prep/Six District Educational Compact	Polymer Science and Testing	Tech-Prep	ODE: None ODOD: \$36,050 FY 94; No Request FY 95	10
Toledo Area Private Industry Council/ Toledo Public Schools Toledo Youth Apprenticeship Program	Not specified	Youth Apprenticeship	ODE: None ODOD: \$39,102 FY 94; \$13,457 FY 95	8
Youth Opportunities Unlimited/ Cleveland Public Schools Project SMART	Manufacturing and Automotive- Related Technologies	Youth Apprenticeship	ODE: \$70,000 FY 94; \$70,000 FY 95 ODOD: \$75,000 FY 94; \$74,000 FY 95	255
TOTAL			ODE: \$210,000 FY 94; \$210,000 FY 95 ODOD: \$567,685 FY 94; \$505,457 FY 95	523

* Model identified in program description

Sources: Gathering Momentum: FY1995, Ohio Council on Vocational Education; Ohio
Department of Development; Ohio Department of Education; Ohio Legislative Budget Office

The Request For Proposals (RFP) to apply for additional School-To-Work Opportunity Act funds for the implementation phase of School-To-Work has been delayed at the federal level. Previously, a total of \$50 million over five years was competitively available to states for School-To-Work systems. Current budget deliberations in Washington, D. C. may result in the remaining School-To-Work funds being subsumed into a larger job-training block grant along with JTPA and Carl D. Perkins funds.

House Bill 152 of the 120th General Assembly appropriated \$710,000 each year

of the biennium for School-To-Work pilot projects. In appropriation item GRF 195-418, the Department of Development received \$500,000 each year of the biennium to fund mentor demonstration projects in six business and manufacturing fields. In appropriation item GRF 200-507, the Department of Education received \$210,000 each year of the biennium to fund three School-To-Work pilot projects. The Ohio Department of Development provided funds to support two additional pilot projects. The governor's proposed budget for the 1996-1997 biennium includes an increase of \$1.5 million for School-To-Work projects.

What Is the Current Status of School-To-Work in Ohio?

In addition to the pilot projects, state-level School-To-Work efforts have focused on strategic planning and consensus building at the state level. There are several key "teams" involved, including: the Investing in People Project's A-Team, the Governor's Human Resource Investment Council (GHRIC) and its Inter-agency Staff Team, the School-To-Work Office, and the School-To-Work Inter-agency Team. As depicted in Exhibit 4, there is significant cooperation between the legislative and executive branches in developing a School-To-Work approach to education and job training in Ohio. However, some duplication of effort exists within the multiple inter-agency teams.

Two separate grant proposals have been developed and funded, one submitted to the National Conference of State Legislatures and one submitted to the federal government. The grant proposals clearly describe both the need for a School-To-Work approach to education and job training in Ohio, and the infrastructure necessary to support it. State-level initiatives such as the Occupational Competency Analysis Profiles (OCAP), Individual Career Plans (ICP), Career Passports, and local Business Advisory Councils are identified in these grant proposals as critical to the implementation of a School-To-Work system.

State-level Initiatives Critical to School-To-Work

Occupational Competency Analysis Profiles

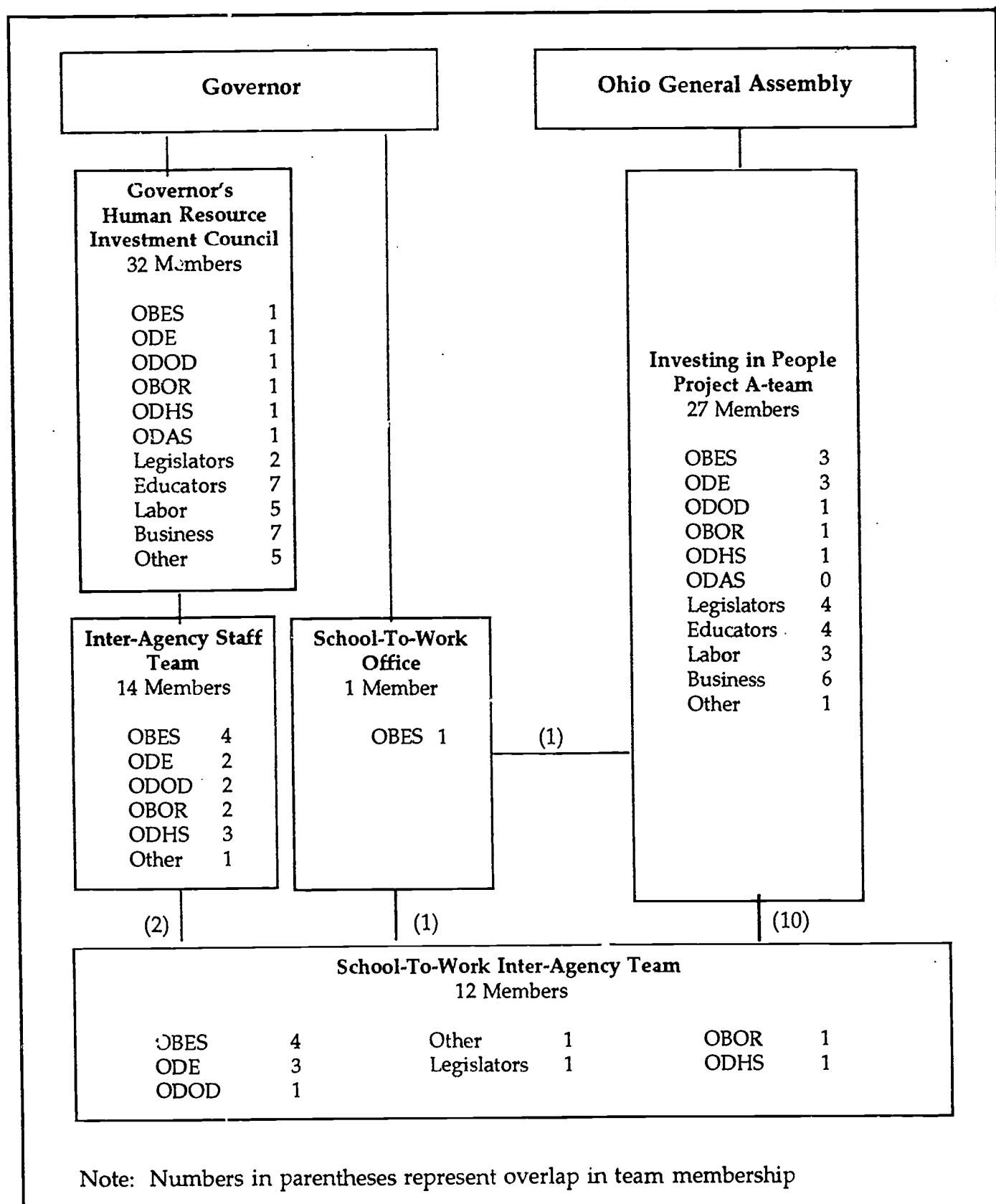
(OCAP) is a system for determining performance competency in 60 occupational fields. Each OCAP identifies the occupational, academic, and employability skills needed to enter a given occupational field. Employability skills are verified by an employer panel comprised of industry representatives.

An Individual Career Plan (ICP) is an education and job-training plan based on the identified career interests of a student. It addresses the educational and job-training experience necessary to enter a specific occupation. Ideally, Individual Career Plans are developed with each student by the end of the eighth grade and evolve to address the skills necessary to enter a specific occupation.

A Career Passport is a portfolio containing representative pieces of a student's work that identifies academic and work-related achievements. The portfolio may contain information about specific competencies, grades, and attendance records. It can be used to develop plans for continuing education or as a means for occupational credentialing.

Local Business Advisory Councils consist of 8-15 members required in all city and county school districts to assure the consistency of school curricula and employment skills. Business Advisory Councils are designed to foster the relationships among local business, labor, and education personnel.

Exhibit 4
Teams Involved With School-to-Work



One of the most notable activities of Ohio's School-To-Work Office has been the development of a statewide plan that includes strategies and action steps to achieve a School-To-Work system. The Office distributed 10,000 copies of the draft document to legislators, businesses, community leaders, educators, organized labor, and parents. Structured feedback on the framework was solicited to shape the state's final implementation plan. This excerpt from the School-To-Work statewide plan summarizes the current status of School-To-Work in Ohio:

What Can Legislators Do to Further Ohio's School-To-Work Efforts?

School-To-Work could be a framework for education reform initiatives. Its goal is to offer a challenging curriculum for all students, infused with applications from real workplaces, which keeps open the options of going on to a four-year college, a technical or two-year college, a training program, or a job. Implementing School-To-Work could change how education is provided in Ohio; the focus of the curriculum would change, teacher education and training would change, and the role of the community in the education of young adults would change.

Legislative action could further the implementation of School-To-Work in three areas.

1. Continue to fund projects that address the three basic School-To-Work elements. These elements are:
 - *School-based learning* that includes information on career options and career preparation for all students, as well as applied academics linked directly to workplace situations;

"Many of the elements of an effective school to work system are already in place. It should also be recognized that individual programs--operating both at the state and local level, and in the public and private sectors--have made significant progress in building the necessary bridges between education and employment for youth. Yet, these programs have not been systematized to effect widespread changes in education and training practices, nor have they provided work-based education for all students."

- *Work-based learning* that provides meaningful experiences in the workplace for all students, including paid work experiences where possible, which is coordinated with learning in school; and
- *Connecting activities* that lead to active partnerships among high schools, vocational schools, post-secondary institutions, and the local business community.

Legislators could decide whether to fund programs earmarked for certain school districts based on the presence of all three School-To-Work elements. Making state funding contingent on the presence of School-To-Work elements would reinforce the state's emphasis on preparing students for employment.

2. Shift the focus from state level strategic planning to local implementation. Identify, through the experiences of Ohio's pilot projects and others across the country, the steps or pieces that must be in place locally to begin implementing School-To-Work.

Legislators could play a key role in promoting local implementation. Decisions are needed regarding: incentives for business participation in local School-To-Work programs; the consolidation and redirection of education and job-training funds to support local School-To-Work efforts; and the modification of child labor laws and workplace liability regulations to allow students access to real work environments. Increased legislative involvement in task forces and coordinating councils addressing job-training and School-To-Work issues could bring legislators into important discussions on education reform.

3. Encourage networking among schools and among businesses involved in School-To-Work projects through the creative use of pilot projects. School-To-Work pilot projects in schools and businesses could be operated as learning laboratories where other interested schools and businesses could benefit from observation and interaction with students, teachers, and work-site mentors. Continuous improvements in the School-To-Work pilot project would

be possible as a result of these interactions. Evaluation information about how to best operate School-To-Work pilot projects and their outcomes would be cumulative.

The use of pilot projects in this manner would require sufficient funding to allow pilot schools to expand staff to support other schools and businesses implementing a School-To-Work approach. The process for selecting pilot sites would need to include criteria related to the willingness of teachers to work with educators and businesses from other school districts. Both teachers and students would have to understand that their role as a pilot project is to serve other schools.

* * *

With Ohio's School-To-Work system still in the development stage, it would be premature to attempt a full-scale evaluation. However, it is not too early for individuals involved in education policy to determine the degree to which School-To-Work will become a catalyst for education reform in Ohio.

Appendices

APPENDIX A

SELECTED OCCUPATIONAL AND BASIC EDUCATION PROGRAMS

The following list includes 22 occupational and basic education programs available in Ohio that target young adults ages 14 to 24. This list provides information on each program's state budget authority and administrative agency, current and proposed state funding levels, and the number of participants served in the most recent fiscal year for which data are available. Although programs funded wholly or in part by the federal government are included, only state dollars appropriated to these programs are reported. The School-To-Work Inter-agency Team is in the process of compiling a comprehensive profile of Ohio's training programs that includes state and federal funding.

Only state dollars appropriated for the actual delivery of services are reported; funds for program administration have been excluded where possible. Also omitted from the list are programs strictly limited to special populations, such as people in prison, people with severe mental disabilities, people belonging to specific ethnic groups, and people with mental retardation or developmental disabilities.

Table of Contents Occupational and Basic Education Programs

Adult Basic and Literacy Education (ABLE)	A2
Adult High School Continuation Program (AHSC)	A2
Career Passport	A2
Civilian Conservation Corps (CCC)	A3
Graduation Reality and Dual-Role Skills (GRADS)	A3
Individual Career Plan (ICP)	A3
Job Opportunities and Basic Skills Program (JOBS)	A3
Jobs for Ohio Graduates (JOG)	A4
JTPA 8% Educational Setaside	A4
JTPA Title II-A, Adult and Youth 77% Program	A4
JTPA Title II-B, Summer Youth Employment and Training Program (SYETP)	A5
Learning, Earning, and Parenting (LEAP)	A5
Occupational Work Adjustment (OWA)	A5
Occupational Work Experience (OWE)	A5
Ohio Career Information System (OCIS)	A6
Ohio General Educational Development (GED) Testing Service	A6
Ohio State Apprenticeship Council	A6
Post-Secondary/Adult Vocational Education	A7
School-To-Work	A7
Secondary Vocational Education	A7
Technical and Community College Education	A8
Tech-Prep	A8

Adult Basic and Literacy Education (ABLE): educational services are provided to any adult seeking to improve skills in the areas of basic literacy (reading, writing, and computation), English as a second language, and preparation for high school equivalency tests. Services are available to individuals who do not have a certificate of graduation from a secondary school; lack sufficient mastery of basic educational skills of literacy; are not proficient in the English language; and are beyond compulsory school age.

State Budget Authority	Appropriation Item GRF 200-509
State Administrative Agency	Ohio Department of Education
Current State Funding	\$6,938,189 FY 94; \$7,053,430 FY 95
Proposed State Funding	\$7,229,766 FY 96; \$7,410,510 FY 97
Number Served FY 94	19,732 participants completed Level III coursework (grades 9 to 12) and went on to pass the GED

Adult High School Continuation Program (AHSC): Ohioans 16 years of age or older are eligible as long as they are not enrolled in a high school or have not earned a high school diploma. The Ohio Department of Education reimburses participating school districts \$10 per instructional hour, to a maximum of \$1,200 for a one-credit course. Courses offered to adults must be counted as credit toward a high school diploma.

State Budget Authority	Appropriation Item GRF 200-447
State Administrative Agency	Ohio Department of Education
Current State Funding	\$221,657 FY 94; To be determined FY 95
Proposed State Funding	\$5,081,215 FY 96; \$5,121,557 FY 97 (AHSC funding is combined with Ohio GED funding)
Number Served FY 94	2,829 participants; 335 high school diplomas awarded

Career Passport: is a credentialing tool that documents the specific occupational, academic, and employability skills of students who complete a secondary or post-secondary adult vocational education program. The three pieces of the Career Passport include a personal data sheet; occupational, academic, and employability competency profile; and transcripts, diplomas, certificates, etc. The competency profile identifies skills measured by performance-based standardized tests such as WorkKeys. The Career Passport is designed to assist employers in identifying, screening, and evaluating applicants while helping those who complete vocational education to market their skills. The format of the Career Passport is standardized throughout the state, thereby establishing credibility to the contents of the document and the capabilities of the prospective employee.

State Budget Authority	Appropriation Item GRF 200-544
State Administrative Agency	Ohio Department of Education
Current State Funding	\$4,462,501 FY 94; \$5,250,000 FY 95
Proposed State Funding	\$5,407,500 FY 96; \$5,569,725 FY 97 (Career Passport funding is combined with Individual Career Plan funding)
Number Served FY 94	15,681 completed vocational programs

Civilian Conservation Corps (CCC): provides on-the-job training for youth ages 18 to 24 and teaches them work maturity while providing a federal minimum wage.

State Budget Authority	Appropriation Item GRF 743-321
State Administrative Agency	Ohio Department of Natural Resources
Current State Funding	\$4,909,718 FY 94; \$4,954,021 FY 95
Proposed State Funding	\$4,958,527 FY 96; \$4,958,526 FY 97
Number Served FY 94	500 to 600 students

Graduation Reality and Dual-Role Skills (GRADS): is a home-economics instruction and intervention program for pregnant and parenting teens. The objectives of the program are: to increase the likelihood that participants will remain in school during pregnancy and after child birth to the point of graduation; to have healthier mothers and babies; to provide participants with knowledge and skills related to child development and positive parenting practices; to prepare participants for work; and to encourage participants to set goals toward balancing work and family.

State Budget Authority	Appropriation Item GRF 200-507
State Administrative Agency	Ohio Department of Education
Current State Funding	\$9,600,000 FY 94; \$10,000,000 FY 95
Proposed State Funding	\$9,500,000 FY 96; \$11,000,000 FY 97
Number Served FY 94	11,529 students; 622 schools

Individual Career Plan (ICP): assists students in identifying and exploring initial career goals and establishing an educational plan to prepare for a future career. The ICP is a learning process for students beginning in kindergarten. In the 8th grade, students identify an educational plan needed to achieve goals at the secondary level and beyond. High school students have additional opportunities to explore and verify career goals and formally review and add to their ICP documents.

State Budget Authority	Appropriation Item GRF 200-544
State Administrative Agency	Ohio Department of Education
Current State Funding	\$4,462,501 FY 94; \$5,250,000 FY 95
Proposed State Funding	\$5,407,500 FY 96; \$5,569,725 FY 97
	(ICP funding is combined with Career Passport funding)
Number Served FY 94	128,543 students

Job Opportunities and Basic Skills Program (JOBS): individuals receiving public assistance, including Aid for Dependent Children (AFDC), are required to participate in the program. The JOBS program aids individuals in securing unsubsidized employment and living independently from public assistance. Services available to participants include vocational training and job-club opportunities, education, work experience in public work projects, and bonuses to AFDC parents under the age of 19 who continue or return to high school, vocational school, or GED programs.

State Budget Authority	Appropriation Item GRF 400-415
State Administrative Agency	Ohio Department of Human Services
Current State Funding	\$6,639,644 FY 94; \$2,942,817 FY 95
Proposed State Funding	\$3,705,950 FY 96; \$4,139,114 FY 97
Number Served FY 94	36,418 recipients

Jobs for Ohio Graduates (JOG): serves high school seniors who are at risk of not graduating or not successfully entering the labor force. Eligible participants are high school seniors who exhibit "at-risk" characteristics, including: being one or more years behind the typical grade for one's age; below average academic test scores; above average number of absences; probation or suspension within the last two years; membership in an economically disadvantaged family; living with only one or neither of the natural parents; mother did not graduate from high school; and friends do not expect to graduate from or have dropped out of high school. Students must be recommended for the program by the local in-school advisory committee. No more than 25% of program participants may come from the top half of the class in academic standing and no less than 50% from the bottom fourth of the class. JOG provides personal and employability skills training to participants and places them in full-time jobs or training programs. After graduation, JOG participants are assisted in locating full-time unsubsidized employment and their employment progress is monitored. Participants who go on to college or other training programs after graduation are also monitored.

State Budget Authority	Appropriation Item GRF 200-507
State Administrative Agency	Ohio Department of Education
Current State Funding	\$5,400,000 FY 94; \$5,400,000 FY 95
Proposed State Funding	\$6,200,000 FY 96; \$7,000,000 FY 97
Number Served FY 94	5,949 students; 159 schools

JTPA 8% Educational Setaside: targets economically disadvantaged youth and adults in need of basic skills training. Twenty percent of the funds are used for administration, coordination, technical assistance, and linkage with various state and local agencies that provide services to eligible participants. Eighty percent is used by service delivery areas (SDAs) to provide long-term skill training to eligible adults in public education agencies. SDAs may spend a portion of their money on special programs such as literacy training for youth and adults, School-To-Work transition programs for youth, and drop-out prevention programs for youth. Twenty percent of the training funds may be used by the Ohio Departments of Mental Health, Youth Services, Mental Retardation and Developmental Disabilities, and Rehabilitation and Correction to meet the needs of individuals with severe and multiple barriers to employment by assisting their transitions from sheltered institutional environments to competitive work environments. Services provided by this program include assessment, job search assistance, job counseling, remedial education/basic skills training, classroom skill training, on-the-job training, literacy training, work habit instruction, and support services.

State Budget Authority	(Federal funding only--Appropriation Item 376 200-653)
State Administrative Agency	Ohio Department of Education
Current State Funding	None
Proposed State Funding	None
Number Served FY 94	2,355

JTPA Title II-A, Adult and Youth 77% Program: targets economically disadvantaged youth and adults with multiple barriers to employment who have a family income of no more than 125% of the federal poverty line. The program provides career counseling and aptitude testing, basic education and job-specific training, and instruction in resume writing and interviewing. Support such as transportation, child care, meals, and work-related supplies are also provided. Follow-up services in counseling, child care, and transportation are offered six months after job placement to ensure continued employment. At least 40% of available funds must be used to provide services to youth.

State Budget Authority	(Federal funding only--Appropriation Item 365 795-602)
State Administrative Agency	Ohio Bureau of Employment Services
Current State Funding	None
Proposed State Funding	None
Number Served FY 94	16,974

JTPA Title II-B, Summer Youth Employment and Training Program (SYETP): serves economically disadvantaged youth ages 16 to 21 who face multiple barriers to employment and youth ages 14 to 15 who meet specified job training plans. Programs focus on educational skills, encourage completion of school, and provide youth with exposure to the work place. Activities include remedial education, vocational exploration, on-the-job training, work experience combined with educational activities, and support services.

State Budget Authority	(Federal funding only--Appropriation Item 365 795-602)
State Administrative Agency	Ohio Bureau of Employment Services
Current State Funding	None
Proposed State Funding	None
Number Served FY 94	20,719

Learning, Earning, and Parenting (LEAP): is mandatory for all pregnant and custodial teens under the age of 20 who are receiving AFDC and do not have a high school diploma or GED. LEAP addresses the problems associated with teen pregnancy such as high school drop-out rates, youth unemployment, and long-term public assistance dependency. The primary goal of LEAP is to increase the education levels of participants which will in turn increase their economic independence. Participants are required to meet attendance requirements, and if met, will receive an added financial "bonus" to their AFDC grants. For those participants failing to meet the attendance requirements, AFDC grants are reduced. Each participant receives case management and is eligible for services such as child care and transportation.

State Budget Authority	Appropriation Items GRF 400-503 and GRF 400-536
State Administrative Agency	Ohio Department of Human Services
Current State Funding	\$2,808,860 FY 94; \$3,191,910 FY 95 (400-503) \$1,294,125 FY 94; \$1,279,930 FY 95 (400-536)
Proposed State Funding	\$3,364,075 FY 96; \$3,571,319 FY 97 (400-503) \$1,379,716 FY 96; \$1,389,216 FY 97 (400-536)
Number Served FY 94	11,983 recipients

Occupational Work Adjustment (OWA): is a cooperative vocational education program that relates coursework and learning experiences to work adjustment in private and public paid employment. The program is designed for youth ages 14 to 15 who are drop-out prone. Students must be identified as economically or academically disadvantaged for admission to this program.

State Budget Authority	Appropriation Item GRF 200-507
State Administrative Agency	Ohio Department of Education
Current State Funding	\$24,531,000 FY 94; \$24,531,000 FY 95
Proposed State Funding	\$25,160,000 FY 96; \$25,789,000 FY 97
Number Served FY 94	10,224 students; 623 units

Occupational Work Experience (OWE): serves academically and economically disadvantaged, at-risk students ages 16 and over. These students have not succeeded in regular vocational or academic programs and have been identified as needing special assistance and instruction. Graduation and becoming productive citizens are the primary goals of the program.

State Budget Authority	Appropriation Item GRF 200-507
State Administrative Agency	Ohio Department of Education
Current State Funding	\$24,180,000 FY 94; \$24,180,000 FY 95
Proposed State Funding	\$24,800,000 FY 96; \$25,420,000 FY 97
Number Served FY 94	11,887 students; 570 units

Ohio Career Information System (OCIS): is a computer-based guidance information system which provides national, state, and local data on occupations, educational training programs, financial aid, and job-seeking skills. The primary purpose of the system is to assist youth and adults in the career development process. The secondary purpose is to assist program planners who operate and administer educational programs and services. This information system is available through secondary schools and colleges to anyone who is planning, preparing, or changing careers.

State Budget Authority	Appropriation Item GRF 200-514
State Administrative Agency	Ohio Department of Education
Current State Funding	\$469,638 FY 94; \$484,436 FY 95
Proposed State Funding	\$500,000 FY 96; \$500,000 FY 97
Number Served FY 94	375,677 students; 1,000 locations

Ohio General Educational Development (GED) Testing Service: provides tests to enable individuals who have not graduated from high school to demonstrate their abilities to complete a high school program of study. Any adult, 19 years or older who has not earned a high school diploma or GED, is eligible to take the exam. Individuals who are 18 years old may take the exam with the permission of their school, and individuals 16 and 17 years of age may take the exam with parental and school permission.

State Budget Authority	Appropriation Item GRF 200-447
State Administrative Agency	Ohio Department of Education
Current State Funding	\$1,224,180 FY 94; To be determined FY 95
Proposed State Funding	\$5,081,215 FY 96; \$5,121,557 FY 97 (Ohio GED funding is combined with AHSC funding)
Number Served FY 94	21,077 tested; 16,315 passed

Ohio State Apprenticeship Council: authorizes the registration of programs as apprenticeships based on the U.S. Department of Labor, Bureau of Apprenticeship and Training guidelines. Any individual age 16 years or older may apply for admission into a registered apprenticeship program. Participants in a registered training program must complete a minimum of 2,000 hours per year of on-the-job training, with 144 hours of related instruction with a progressively increasing wage scale. A certificate is awarded upon completion of a registered apprenticeship program.

State Budget Authority	Appropriation Item GRF 795-414
State Administrative Agency	Ohio Bureau of Employment Services
Current State Funding	(formerly organized within the Ohio Industrial Commission)
Proposed State Funding	\$186,897 FY 96; \$192,071 FY 97
Number Served FY 94	13,700 registered apprentices; 244 registered trades

Post-Secondary/Adult Vocational Education: provides skills training to enter the job market, remain competitively employed, or advance in a career. Instruction is offered in the areas of agriculture, business, health care, home economics, marketing, and public safety. Services include job-readiness and employability, child care, financial aid assistance, career counseling and placement, and ability assessment. Participants must be 16 years old and no longer enrolled in a secondary education program. Current and proposed funding for Post-Secondary/Adult Vocational Education include funds appropriated for the Ohio Career Information System.

State Budget Authority	Appropriation Item GRF 200-514
State Administrative Agency	Ohio Department of Education
Current State Funding	\$13,768,184 FY 94; \$17,035,956 FY 95
Proposed State Funding	\$17,461,855 FY 96; \$17,898,401 FY 97
Number Served FY 94	232,326 adults

School-To-Work: is a variety of education and occupational programs designed to improve students' transition from school to work by combining learning in the classroom with learning in the workplace. School-To-Work emphasizes the importance of job-related skills and work experience for all students, as well as the involvement of business, industry, and labor in an active partnership with education. The General Revenue Fund supports 11 pilot projects across the state.

State Budget Authority	Appropriation Items GRF 200-507, GRF 195-418, and GRF 795-409
State Administrative Agency	Ohio Departments of Education and Development, and the Ohio Bureau of Employment Services
Current State Funding	\$210,000 (ODE) FY 94; \$210,000 (ODE) FY 95 \$500,000 (ODOD) FY 94; \$500,000 (ODOD) FY 95
Proposed State Funding	\$2,000,000 (ODE) FY 96; \$2,000,000 (ODE) FY 97 \$507,028 (ODOD) FY 96; \$523,259 (ODOD) FY 97 \$205,964 (OBES) FY 96; None FY 97
Number Served FY 94	523 students

Secondary Vocational Education: teaches occupational skills in agriculture, business, health care, home economics, marketing, and trade and industrial education to students who are at least 16 years of age. Current and proposed funding for Secondary Vocational Education includes funds appropriated for the Graduation Reality and Dual-Role Skills (GRADS) program, the Jobs for Ohio Graduates (JOG) program, the Occupational Work Adjustment (OWA) program, the Occupational Work Experience (OWE) program, School-To-Work, and Tech-Prep.

State Budget Authority	Appropriation Item 200-507 *
State Administrative Agency	Ohio Department of Education
Current State Funding	\$256,407,477 FY 94; \$264,443,680 FY 95
Proposed State Funding	\$269,209,567 FY 96; \$283,844,510 FY 97
Number Served FY 94	39,755 students (occupational specific programs only)

* does not include Appropriation Items: GRF 200-414, GRF 200-416, GRF 200-526, and 017 200-672

Technical and Community College Education: is offered to individuals throughout the state and provides a variety of continuing education opportunities, including courses and programs to assist adult learners in acquiring or updating job-related skills.

State Budget Authority	Appropriation Item GRF 235-501
State Administrative Agency	Ohio Board of Regents
Current State Funding	\$200,887,490 FY 94; \$212,634,751 FY 95 (Combined instructional subsidies for community and technical colleges)
Proposed State Funding	\$224,768,919 FY 96; \$238,001,042 FY 97 (Combined instructional subsidies for community and technical colleges)
Number Served FY 94	85,910 full-time equivalent students enrolled in community and technical colleges

Tech-Prep: supported through the Tech-Prep Education Act, a part of the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990. Tech-prep in Ohio is a competency-based program of combined secondary and post-secondary education and occupational experience that includes a common core of required proficiencies in mathematics, science, communications, and technologies designed to lead to an associate degree or two-year post-secondary certificate in specific career fields.

State Budget Authority	Appropriation Item GRF 200-507
State Administrative Agency	Ohio Department of Education
Current State Funding	None FY 94; None FY 95
Proposed State Funding	\$1,500,000 FY 96; \$2,000,000 FY 97
Number Served FY 94	800 students; 47 programs

Sources: Information for Appendix A was compiled from Amended Substitute House Bill 117, the Executive Budget for 1996-1997, the Legislative Budget Office Budget Briefing Materials, the Ohio Bureau of Employment Services' Windows of Opportunity: A Directory of Workforce Development Programs in Ohio, the Ohio Department of Education's Vocational Education Secondary Unit Funding Procedures Manual, and input from representatives of various state departments.

APPENDIX B

HIGH SCHOOL VOCATIONAL EDUCATION PROGRAMS AND STUDENTS

Vocational education is instruction in occupational, academic, and employability skills that prepares students for employment and life-long learning. Occupational skills are the technical abilities to perform required workplace tasks. Academic skills are core competencies in science, math, and English/language arts. Employability skills include critical thinking, decision-making, teamwork, following directions, willingness to work, and job search, application, and self-marketing skills.

Vocational education in Ohio is organized around six program areas: Agricultural Education, Business Education, Health Occupations Education, Home Economics Education, Marketing Education, and Trade and Industrial Education. Each of these six programs is further organized into specific instructional areas. The following table includes brief descriptions of each program area. Also included is the number of students who completed the program in fiscal year 1994, that is, the number who attained occupation-specific skills sufficient for employment, and the number of students who left the program without completing the necessary skills or who have dropped out of high school. Only those programs providing skills training directly related to gainful employment have been included in the table.

PROGRAM AREAS	FY 1994		
	Total Students	Students who completed	Students who withdrew
Agriculture Education Preparation for the production, care, and initial processing of air, water, soil, plants, and animals.	18,994	1,659	303
Business Education Coursework and practical experience for selected office occupations, including: recording and retrieving data, supervising and coordinating office activities, internal and external communications, and reporting of information.	13,885	3,130	353
Health Occupations Education Courses and planned experiences to develop knowledge and skills for work in various health care professions, including instruction in diagnostic, therapeutic, preventative, restorative, and rehabilitative support services.	3,491	892	87
Home Economics Education Courses to increase students' competencies in family life matters, work and family interactions, and home economics-related occupations.	5,030	983	217

PROGRAM AREAS	FY 1994		
	Total Students	Students who completed	Students who withdrew
Marketing Education Courses and activities related to the direct flow of goods and services, including selling, and sales-support, transporting, storing, promoting, financing, marketing research, communication, and risk management.	7,151	1,744	227
Trade and Industrial Education Preparation for a wide range of trade and industrial occupations, particularly those related to producing, processing, assembling, testing, maintaining, servicing, or repairing any product or commodity. Classroom instruction and shop or laboratory experiences simulate those in industry and teach basic manipulation skills, safety judgement, and related academics required to perform a specific occupation.	41,139 *	7,770	2,690
Totals	89,600	16,178	3,877

Sources: -- FY 1995 Vocational Education Secondary Unit Funding Procedures Manual, Ohio Department of Education, Division of Vocational and Career Education

-- FY 1994 Ohio Comprehensive Annual Performance Report, Ohio Department of Education, Division of Vocational and Adult Education

APPENDIX C

OHIO'S SCHOOL-TO-WORK PILOT PROJECT DESCRIPTIONS

The 11 School-To-Work pilot projects described in Appendix C are funded through the Ohio Departments of Development and Education. For a detailed description of each department's contribution, refer to Exhibit 3.

Center for Leadership in Education, Lorain County School-To-Work Transition Program

This project is an expansion of an existing summer youth internship project into a year-round youth apprenticeship program in metalworking and building trades, environmental studies, and international business. In the summer preceding the 11th grade, students participate in a 50-hour, non-paid apprenticeship; and in the summer preceding the 12th grade, students participate in a paid apprenticeship. Teachers and work-site mentors work collaboratively to develop curriculum and work competencies that are based on students' individual needs and career goals. Teachers integrate a rigorous academic curriculum with technical lab experiences that are reinforced by the work-site mentors. Other elements of this project include teacher internships at local work-sites and the development of industry-recognized entry level criteria and completion standards for placing students in jobs, tech-prep programs, associate degree programs, certificate programs, and four-year colleges.

Columbus State Community College/Eastland Vocational Schools, Central Ohio Tech-Prep

This project provides classroom training, on-the-job training, and work-based instruction for students interested in careers in insurance, banking, or health services. Beginning in the 11th grade, students participate in career exploration activities. By the 12th grade, students who have passed the Ninth Grade Proficiency Test receive individualized mentoring and job-specific apprenticeship experiences. The tech-prep curriculum developed for the program extends student learning through the post-secondary level. Student standards are based on appropriate OCAPs and tech-prep competencies. This project is characterized by its strong business/instructor exchange program and significant parental involvement. Project funds are used for industry mentor experiences and on-the-job training, as well as the development of handbooks and other materials for mentors and educators.

Cuyahoga Community College, North Coast Tech-Prep Consortium

When operational, this project will provide students with learning experiences in various health care facilities in the Greater Cleveland area. Sites will include Cleveland Heights/University Heights High School, Mayfield High School, Polaris Joint Vocational School, and Cleveland Public Schools' Health Careers Center. Applied courses in biology and chemistry will be added to math, physics, and English courses already in place. A cluster approach will help to establish articulation models for magnet schools, comprehensive high schools, and joint vocational schools. Funds will be used for industry mentor expenses.

Marion Technical College/Tri-Rivers Career Center, Tech-Prep Partners Consortium of Marion

Tri-Rivers Joint Vocational School District and Marion Technical College are working to include the elements of School-To-Work into their already existing tech-prep programs: Production/Business Technologies, Computer Technologies, and Engineering Technologies. An internship model is used to connect "school" to "work" beginning in the 8th grade and continuing through the 12th grade. Students receive periodic individual assessments which are used to make the necessary program adjustments. Funds are being used to develop a mentor training program and "work-shadow" guidelines, as well as to provide paid work experiences for graduating seniors. Students have the opportunity to pursue employment or an associate degree at Marion Technical College.

Owens Technical College/Grob Systems, Inc., Mechanical and Electrical Technician Apprenticeship

Grob Systems, Inc., a machining and automated assembly plant, is providing a two-year apprenticeship in mechanical- and electrical-technician careers to high school graduates. High school seniors are selected based on attendance records, transcripts, SAT scores, and performance on a test used to determine their knowledge of mathematics, mechanical aptitude, drawing skills, and problem-solving abilities. Once students are selected, they attend core courses which consist of eight hours of instruction one day per week for 36 weeks during the first year, and 280 hours of "hands-on" training in the second year. Owens Technical College teachers train the apprentices in the Grob Systems plant. First-year apprentices are paid \$6 an hour and second-year apprentices are paid \$7 an hour. Apprentices are entitled to full company benefits. Once they have successfully completed the program, apprentices receive \$13 an hour or more depending on their grade-point average. Grob Systems, Inc. invests \$70,000 per apprentice and requires them to stay for a minimum of two years upon completion of the training program.

Shawnee State University, Ohio South Tech-Prep Consortium

Building on the Individual Career Plan, students in the 7th and 8th grades are given the opportunity to develop their employability skills. In the 9th grade, students begin their technical education through the selection of applied academics. Students in the 11th and 12th grades are given the choice of two tech-prep programs: to attend a joint vocational school where they can work toward their specific occupational competencies, or to remain in their "home" high school to work toward their occupational competencies by attending either of the two universities or the joint vocational school and completing a field internship. Once the students complete high school, they enter an associate degree program in an applied technology where academic, occupational, and employability competencies are defined and developed for direct entry into the workforce.

Sinclair Community College, Miami Valley Tech-Prep Consortium--Automotive

This program provides students with a seamless course of study spanning the last two years of high school and the first two years at a community college in the automotive-engineering field. Work-site experiences through corporate programs associated with the college are anticipated to result in high employment rates for program participants.

Sinclair Community College, Miami Valley Tech-Prep Consortium--Electronics

This program provides students with a seamless course of study spanning the last two years of high school and the first two years at a community college in the electronics/electromechanical field. Work-site experiences through corporate programs associated with the college are anticipated to result in high employment rates for program participants.

Stow-Munroe Falls City Schools, Akron Tech-Prep/Six District Educational Compact

Developed out of a collaborative effort between school personnel and the Society of Plastics Engineers and the American Chemical Society Rubber Division, this two-year program integrates college preparatory subjects with vocational training at local companies. In the 11th grade, students learn to conduct polymer testing and are able to apply their work toward one college credit in technical theory, two credits in laboratory experience, and one college chemistry credit in Applied Polymer Chemistry. In the 12th grade, students hone their research and quality assurance techniques studying Statistical Process Control procedures. Seniors work as lab technicians in the second half of the year for a minimum of three hours per day while earning both lab credit and an hourly wage. Seniors earn one college credit in technical theory, two lab credits, and one credit in Applied Polymer Physics. Project funds are used to train industry mentors.

Toledo Area Private Industry Council/Toledo Public Schools, Toledo Youth Apprenticeship Program

This youth apprenticeship program is based on the existing cooperative education programs offered through the Toledo City Schools. Elements of the program include paid work experience, applied academics, close coordination between academics and the job site, and occupational competencies based on the OCAP system. The program is unique because of the emphasis that it places on training mentors in the areas of teaching skills and communications. Students receive paid work experience the summer following their junior year and continue to work part time throughout their senior year. Upon graduation, employers have the option of offering the student full-time employment. Students can also apply to a registered apprenticeship program, or continue into post-secondary education.

Youth Opportunities Unlimited/Cleveland Public Schools, Project SMART

This youth apprenticeship program trains students in the areas of manufacturing and automotive-related technologies by integrating academic and vocational coursework. Beginning in the 9th grade, students go on field trips, followed by job shadowing experiences in the 10th grade, work-site learning experiences in the 11th, and a summer skills academy and part-time paid position in a manufacturing company in the 12th grade. While regular students require 18 credits to graduate, Project SMART students are required to have 21.5 credits, including four units of math and three of science. After two years, students qualify for a Certificate of Initial Mastery and graduating seniors receive a Certificate of Mastery. Project funds are used for mentor expenses related to on-the-job training and workbased instruction.

Sources: Gathering Momentum: FY 1995, Ohio Council on Vocational Education
Ohio Department of Education
Ohio Department of Development